Some Aspects of EUA Evaluation at the Brno University of Technology

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Abstract - The European University Association Institutional Evaluation Programme was launched eleven years ago with the aim of preparing universities to meet the emerging needs for external accountability by an increased capacity for both strategic thinking and internal quality culture.

The Preliminary Visit of the EUA Review Team at the BUT, Brno, Czech Republic took place on 9-11 March 2005. This enabled the Team to become acquainted with the University, with initial discussions centered in the areas of Autonomy, Strategic Planning, Evaluation and Quality Processes, Organization and Governance, Internationalization, Resources and Capacity for Change as well as identification of areas for more detailed questioning during the Main Visit which took place on 29 May-1 June 2005.

This contribution contains a brief commented summary of the EUA Evaluation Report. Some important conclusions are discussed in this contribution especially Teaching and Learning; Study Programmes, Student Care, Internationalization; Bologna Process and Quality Assurance at the Brno University of Technology.


1. INTRODUCTION

The European University Association, as the representative organization of both the European universities and the national rectors' conferences, is the main voice of the higher education community in Europe.

EUA's mission is to promote the development of a coherent system of European higher education and research. EUA aims to achieve this through active support and guidance to its members as autonomous institutions in enhancing the quality of their teaching, learning and research as well as their contributions to society. For serving its members, both individual and collective, EUA's main focus is:

- Strengthening the role universities play in the emerging European Higher Education and European Research Areas (EHEA and ERA) through contributing to and influencing policy debate and developing projects and other membership services in the interest of its members;
- Working with member institutions through the organization of membership services and the implementation of projects on key issues that aim to improve quality and strengthen individual universities' European profiles;
- Enhancing the European dimension in higher education and promoting the flow of information through the organization of regular meetings and conferences as well as through the preparation and publication of studies analyzing current trends and highlighting examples of good practice;
- Providing advocacy on behalf of its members, both at the European level to promote common policies, and at the international level to promote increased cooperation and enhance the visibility of European higher education in a global context.

EUA fully upholds the values and principles enshrined in the 1988 Magna Charta. The EUA Institutional Evaluation Programme was launched eleven years ago with the aim of preparing universities to meet the emerging needs for external accountability by an increased capacity for both strategic thinking and internal quality culture. To date more than 140 universities from 36 countries have participated in this program and some have subsequently asked for follow-up visits to monitor progress made.

While the evaluation is focused on the institution as a whole a university may select an additional focus. Brno University of Technology (BUT) requested a focus on the strategic management of the university, with additional special interest in developing the quality of study programmes and relations between the university and society.

The goal of the review is to offer to the university an external diagnostic by university leaders who have experience of different higher education systems in Europe. This diagnostic considers the quality issues and the main actors in the university's daily decision-making process. The EUA does not wish to provide the university with a blueprint for its development; rather the review process is consultative and should be seen as a tool to help institutional leaders as they prepare for change.

The management of BUT regards the external unbiased evaluation of its basic university activities as very required and challenging.

2. SELF-EVALUATION REPORT (SER), PRELIMINARY AND MAIN VISIT

The Review process consisted of several phases. The University first produced a Self-Evaluation Report (SER)

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prepared by the Self-Evaluation Group. The Group consisted of twelve members headed by vice-rector. Membership consisted of teacher and student representatives, university and faculty leaders, economic and administrative management as well as representatives of the Academic Senate. In its introduction the SER explains the reasons for the University’s participation in the EUA evaluation programme:

- There is a need for an outside independent view of the university’s achievements
- An outside independent evaluation will contribute to more systematic and long-term work on the preparation of the strategic plan for the period 2006-2010
- To put BUT into harmony with universities in other EU countries, and consequently identify the strategic position of the university among European universities
- To develop long-term co-operation with the EUA. In this connection the review team notes that BUT was appointed as the only representative of the Czech higher educational system to take part in the EUA research relating to the implementation of the Bologna reforms within the Czech educational system (Trends IV).

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- Autonomy
- Strategic Planning
- Evaluation and Quality Processes
- Organization and Governance
- Internationalization
- Resources
- Capacity for Change

as well as identification of areas for more detailed questioning during the Main Visit.

The Main Visit took place on 29 May-1 June 2005. During the two visits the review Team met the rector, the self-evaluation team and representatives of the various task forces, vice-rectors, deans of faculties, senior administrators, members of the central office staff, directors of support units including the library and centre for computer and information services, staff from a number of support units, representatives from the Academic Senate and the Student Association, staff and students of many faculties, and representatives of external stakeholders. The members of the Team visited seven of the eight faculties.

SER was prepared as the internal university evaluation based on the SWOT analysis; it represents the main source materials for the Evaluation Commission.

3. Profile of the University

The Brno University of Technology was established in 1899. The university offers a wide range of technical disciplines in the Faculties of Civil Engineering (FCE), Mechanical Engineering (FME), Electrical Engineering and Communications (FEEC), Information Technology (FIT) and Chemistry (FC), as well as economic and arts disciplines related to technology in the Faculties of Architecture (FA), Fine Arts (FFA) and Business and Management (FBM). BUT has always ranked among the leading technical universities in the Czech Republic, a fact reflected by its membership in the elite university association CESAER. In 2005 there were 57 accredited bachelor, master and doctoral study programmes with 156 study areas. In accordance with the Bologna Declaration the shift to the three-tier system was completed in 2003 with the accreditation of the study programmes of the FCE.

In academic year 2005/2006 the number of students in the university increased from 18,272 the previous year to 20,563. The university has decided to cap the number of students at 23,000 within a few years. In all faculties BUT has at least two applicants for each available place, a good indication of the competitiveness and standing of the university among students and society at large. Counting full-time equivalents the teaching staff consists of 132 professors, 273 associate professors, 529 senior lecturers and 188 lecturers, giving a student: staff ratio of approximately 18. This is reasonably low by international standards and gives scope for effective overall improvements in the area of teaching and learning.

4. Autonomy

The university is based on the Higher Education Act of 1998. It appears that the university enjoys a measure of autonomy comparable to that enjoyed by many institutions in Western Europe. Indeed it has autonomy in several key areas, such as:

- organizing its internal structure
- appointing teachers and other personnel
- enrolling students in accordance with the national system
- managing finances within the university
- organizing international and national cooperation and exchanges, research initiatives and activities
- generating income from research and other activities.

Study programmes are subject to accreditation by the Accreditation Commission of the Czech Republic. The final decision on whether to grant accreditation is made by the Ministry of Education. While this system of accreditation is common in parts of Europe it is by no means the norm internationally. Although it meets to a limited extent the need for the university to be accountable to society for the quality of its study programmes, it is a very limited instrument.

5. Quality Assurance

The team discussed quality assurance with university staff and students in light of the information given in the SER. The Accreditation Commission of the Czech Republic conducts external reviews of study programmes for the purpose of accreditation. As we understand the process the result of the review is a report that delivers a simple yes or no verdict on whether the programme achieves agreed minimal standards, and may include suggestions for improvement. Internally there is a teaching evaluation system which is also a legal requirement. However the procedure is entirely summative in nature and is used only for purposes of...
determining retention, promotion or salary. There is also an internal evaluation of study programmes but this does not seem to be systematic. In addition the students evaluate teachers and courses via questionnaires but again, according to students we met, this process appears to be sporadic with little or no follow-up or measurable effect on university performance. The SER notes that ‘an electronic version of a sole questionnaire to be adopted throughout the university is currently being prepared.’ However an organization unit that would be responsible for, support and care for the entire system of evaluation of the quality of teaching does not exist at the university.

The quality of higher education has emerged as a key element in the establishment of the European Higher Education Area, national progress and competitiveness, and therefore duality assurance is one of the main action items of the Bologna Process. In the Berlin and Bergen Communiqués the European Ministers of Higher Education committed themselves to supporting further development of quality assurance at institutional, national and European level, and stressed the need to develop mutually shared criteria and methodologies on duality assurance.

For the EUA, as for the Ministers of Education, the key elements in a QA process are:

- self-assessment by the unit being evaluated
- review and site visit by peers including external peers
- publication of the peer review report
- effective follow-up on recommendations for improvement
- minimal bureaucracy
- quality improvement
- involvement of students and other stakeholders.

Given that the Czech Republic is a signatory to the Berlin and Bergen Communiqués, and that BUT is a member of the EUA, the team suggests that the university establish an internal QA system based on the above principles. This should be a central component of the university’s strategic plan.

6. Teaching and Learning: Study Programmes, Student Care

BUT has speedily introduced several of the innovations recommended in the Bologna process. ECTS and the new 3-5 degree structures are now firmly established. A word of warning here. The introduction of the three-year bachelor degree can lead to problems for graduates of a technical university when it is achieved in a dangerously superficial way by simply making it the first three years of the old five-year degree. This can lead to graduates with strong theoretical knowledge but unequipped with the applied training expected of them in the labor market.

Teaching and learning at BUT, and student care, should form a key element of the strategic plan. The plan should be clear on the goals to be achieved and the action plans necessary to realize the goals. This work should proceed in tandem with the speedy development of an overall quality assurance process, with the active co-operation of the students.

There is a need to adopt a new mindset, now common in many universities, with a move from a teaching oriented system of instruction to an emphasis on student learning. The team urges the university to proceed with the implementation of this important initiative. The reasonable teacher: student ratio in BUT should help to facilitate the process. Formal lectures should be reduced and augmented by well organized and supervised self-study and group-study assignments, by tutorials, workshops and an increase in project work.

Staff development is central to the points considered here. The SER notes that ‘systematic training of primarily newly recruited staff is a key factor of the pedagogical process. This training significantly improves the quality of teaching. However BUT lacks a more systematic framework for teaching quality control.’ We stress that it is of the utmost importance that training in teaching and modern presentation should be available to the teaching staff. This is particularly true of teachers who have been working in the non-university sector and come to teaching later in their careers. The new emphasis on learning will highlight the necessity to provide guidance to staff members in new methodologies, in modern methods of communication, and in mutually beneficial interaction with students. The introduction of an effective sabbatical system for staff, allied with an exchange programme with foreign scholars, will be helpful here and provide useful benchmarking on international practice. This will require a structured approach, good organization, and systematic funding. We therefore urge the university to establish a special unit with responsibility for staff development and training, as well as various support services in relation to new and experimental ways of teaching/learning.

Modularization of courses is a development which if used to full advantage can have a profound effect in many areas of university life. Of course the introduction of modularization is well advanced in some of the faculties and we urge the university to proceed with the full implementation of this course structure. Modularization will influence many of the developments planned by the university. At postgraduate level it will simplify the structuring and organization of interdisciplinary studies for both the students and the university, and indeed may point the way to new combinations of subjects for interdisciplinary and multidisciplinary work. At undergraduate level it opens up the possibility of a more effective use of resources by identifying or indeed creating courses which could be regarded as basic or core courses for all or many students in different faculties.

In this context the Team congratulates the university on its decision to establish a central English Language Centre. We now suggest that serious consideration be given to the creation of central departments in core disciplines such as Mathematics and Physics. It is clear that at the moment there is much duplication in the provision of basic mathematics and physics courses across the faculties. Modularization and centralized organization would clearly be beneficial. In addition centralizing these departments would produce research synergies that are lacking at present.

The process of examining closely the desired outcomes of programmes and courses, followed by a breakdown into coherent modules, is a fruitful exercise in itself and by its
nature contributes to a review of curricula. A clear and concise description of the content of each module, with a statement noting the required prerequisite modules, is a necessary element of the process. Modularization will also contribute to transparency in the University’s dealings with students. We suggest that each faculty student handbook should include a description of the content of each module taught in each semester in each course, properly organized with prerequisite modules clearly indicated. The handbook should contain an explanation of the overall aims, learning outcomes and purpose of the courses on offer, benchmarks for student learning and achievements each year, clear guidelines on written and project work, principles on marking and feedback to students. Many universities now include a set of Student Rights and Responsibilities in their handbooks, and examples of these are easily found on the Internet.

The development of the action plans in the Bologna Process will be facilitated by a modularized course structure. Visiting students from abroad will be enabled to easily construct a study programme while the implementation of ECTS will be simplified.

The Team notes from the SER that the university obtains feedback from leaders of companies for the purpose of upgrading existing courses and designing new ones. This is an excellent practice. The economy of a knowledge intensive society depends on the quality of its graduates. Employers are seeking graduates with qualities such as a willingness and ability to acquire new knowledge, to work in multidisciplinary teams, to be flexible and open to new ideas, graduates with problem solving skills, information and communication skills, and the ability to be innovative.

These ideas are not new to BUT but we suggest that a systematic and coherent approach should be organized by setting up a Curriculum Committee to oversee the work. This approach has been used in other countries to very good effect. We encourage the ongoing development of non-consecutive education, also known as continuous education, live-long learning and distance learning that are all part of BUT’s plans. This can be seen as part of a worldwide focus on the role of universities in the creation of Chat is being called a ‘learning society’. The creation of the ‘University of the Third Age’ is a welcome innovation, and the Team notes that it is now in its sixth year and flourishing.

The Team would like to suggest that student care can extend to the life of the students beyond graduation. The University should consider a systematic process for tracking its graduates and creating a database on what they do, where they go, their opinion on teaching and courses, and so on. This would be mutually beneficial since it would maintain the link between the graduates and the university and at the same time provide valuable information for curricular reform and care of undergraduates. A University Alumni Association could be formed to maintain and fortify the contact with graduates and strengthen the good will in the community toward the University. This process of maintaining effective close contact with graduates embeds the University further in the community, and in turn will be helpful to new graduates in finding employment.

The Team is aware that BUT graduates have little difficulty in finding employment at the moment, but nevertheless it may be of interest to note that many universities have set up a ‘Careers and Appointments’ Office. The remit of this office usually includes the following: establishing contact between students and industry for the exchange of information on posts available and graduates qualified to take up the posts, helping students to prepare for interviews, inviting employers to speak to groups of senior students on employer expectations, arranging interviews, and building up a data base on its activities. This is another effective way to embed the University in the working life of the community and maintain contact with graduates and employers. In addition it will help in arranging and organizing the internship programme.

7. INTERNATIONALIZATION, BOLOGNA PROCESS

In the Bologna Process three action items have been emphasized for the creation of the European Higher Education Area (EHEA). Quality assurance is the first of these and we have discussed the creation of a robust QA system in BUT earlier in this report. The second is the adoption of a degree structure on two main cycles. The university is to be congratulated on having this system already in place. The third is the mobility of students and teachers.

In this regard the Ministers state that ‘mobility of students and academic and administrative staff is the basis for establishing a European Higher Education Area. Ministers emphasize its importance for academic and cultural as well as political, social and economic spheres, and agree to undertake the necessary steps to improve the quality and coverage of statistical data on student mobility’. In particular they stress the important role played by the European Credit Transfer System (ECTS) in facilitating student mobility and they appeal to institutions and employers to make full use of the Diploma Supplement. Again BUT is well advanced in the use of ECTS.

From the information provided by the SER and from our meetings with staff and students the Team feels that much has to be done to improve on the international mobility of staff and students. Under Socrates/Erasmus programmes in academic year 2004/2005, 108 teachers spent a total of 161 weeks abroad, 255 students spent a total of 1644 months abroad, while only 98 students came to BUT from abroad (excluding Slovakia). Czech students receive only Euro 350 under the programme with the possibility of a scholarship supplement from the university.

The SER points to several factors to explain the small number of students from abroad: the absence of a university-wide marketing strategy, the narrow range of study programmes in English, the need to approach international students individually, the impossibility of studying at different faculties at the same time, the focus of financial strategies of a number of faculties into other areas, the limited number of academic staff capable of teaching in English. In addition there is the issue of the visibility and image of BUT on the international
scene. A related problem arises from the Czech Higher Education Act: Czech students are not allowed to attend study programmes provided to international students in English for free.

The Office for External Affairs plays a fundamental role as BUT is developing its many contacts in Europe and in the world. The services rendered to the community by this office are numerous and include: efficient advice to BUT students and foreign students, information on the European mobility programmes, help in developing networking with more foreign universities. It appears that shortage of staff inhibits the Office from extending its programme.

However the reality of international actions is not visible enough, and above all there is no clear university policy for internationalisation. The difficulties and obstacles to expansion of the mobility of staff and students stem from the fact that there appears to be no central plan to bring the academic community together to develop a coherent strategic plan for internationalisation. This plan could also include the achievement of objectives in the area of international research contacts and scientific collaboration.

Considering the good work done by the Office of External Affairs and the experience acquired, the review team would wish to recommend a number of steps in order to give international relations the place they must occupy in the European and world context:

- Include in the university strategic plan an international university policy for the next five years with all university components (faculties, departments, research centres) based on the work already done, on effective contacts, on scientific priorities, on geographic areas, etc.
- Allocate a fund to the Office of External Affairs to promote existing/new actions. Confirm the central role played by this Office in implementing the university international policy in cooperation with all university components
- Develop a systematic policy of information to the university community (on European programs, networks, scholarships, ECTS, 6th Framework, Bologna process, Erasmus mundus, etc)
- Define targets to be reached concerning the increase of the mobility of students and teachers and also administrative staff; create more motivation utilising the experience of former Erasmus and Leonardo students; make sure that all PhD students spend a study period abroad; develop a sabbatical programme for BUT teachers with foreign universities and systematic exchanges
- Provide English language training for staff and students
- In support of the University’s goal of providing all study programmes in the English language set a short term target of providing 10% of the programmes in English
- Collect centrally all data at all levels on international actions in order to follow their evolution, their results. Use this monitoring (this log-book) to have a clear view of BUT’s presence in Europe and in the world.

8. CONCLUSION

The Brno University of Technology defines within its Long Term Strategy to become a fully – valued European University as soon as possible. That is the reason why it wants to strengthen its international character, develop students mobility programmes for both incoming and out coming students and create and accredit new attractive study programmes in English, including the joint degrees. It wants also to become an outstanding university and form new conditions for activities of international scientific teams in its high-quality university laboratories.

For fulfilling these conditions this external unbiased evolution of BUT is very important. The international evaluation team elaborated a very quality and comprehensive report which will become the foundation for the future development of BUT.

REFERENCES